



Comics-Based Worktext for Reading Comprehension and Vocabulary Skills in World Literature

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Abstract

This study explores the use of the self-designed comics to enhance the reading comprehension and vocabulary skills of the college students in world literature. Specifically, it identifies the literal, interpretative, creative and evaluative domains of reading comprehension and the context clues, word analysis, word structure and loan words elements of vocabulary skills. It also evaluates the acceptability and effectiveness of the comics through the objective, language used, graphic designs, usability, readability, knowledge ability, values discovery and additional information. The results showed significant differences between the reading comprehension and vocabulary skills pre-test and the post-test indicating improved level of skills with the use of comics as instructional material. However, the improved skills level is not correlated to the acceptability and effectiveness of the material. Furthermore, the use of comics deliver moral lesson to the readers while increasing the reading comprehension and vocabulary skills. The study finds it helpful to use the comics-based work-text in teaching world literature.

Keywords: *literature, comics, worktext, reading comprehension, vocabulary skills*

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1. Introduction

Education is continuously evolving that even the teaching and learning process innovates from time to time. For instance, the instructional materials keep on changing depending on the needs of the learners. In the Philippines, Republic Act 7784, Section 4 stipulates the establishment of a council that “*serves as teacher resource center for curricular/instructional materials development.*” In this context, teachers become producers and consumers of educational materials (Mercado & Ching, 2016) in order to contextualize the contents and style depending on the needs of the students. Relatively, the current applied research study assessed the efficacy of the self-made worktext for college students taking up world literature subject.

The ‘Comics-Based Worktext in World Literature,’ designed to enhance reading comprehension and vocabulary skills, is anchored on the theory of Multiple Intelligences by Howard Gardner. While addressing the various skills development, the worktext also provides various activities suited for the different multiple intelligences. It features sketches of different classical and contemporary stories around the world through graphic representations. It includes full illustrations of classical tales in world literature, information about the literature, ancient findings from historical periods, facts and history around the world, activities and visuals. It features Sinbad the sailor, Princess of the moon Kaguya Hime, Soul of the Great Bell of China, Rama and Sita, Lam-Ang, King Arthur, the Trojan Horse and Lone Ranger, among others. The contents are lifted from valid references of regional literary specimens of stories from high school and college books. Book-bind in letter-sized colored print, each chapter represents a country with a specific literature and historical facts. The various incorporated Multiple Intelligences include verbal or linguistic (language and dialogues), visual or spatial (artistic designs), logical or mathematical (story sequence), bodily or kinesthetic (facial expressions and body positions), interpersonal (role-playing), intrapersonal (self-reflection), naturalistic learner (background graphic design) and musical or rhythmic (musical lyrics).

According to Bundsgaard and Hansen (2011), evaluation of learning materials must provide evidence on actual learning and the causal relations between potential and actual learning. Thus, this applied experimental study implemented the use of the devised learning material in the actual teaching of the world literature. In particular, it answers the following research questions:

1. Is there significant difference in the academic performance of the students before and after the use of the comics-based worktext?
2. Is the comics-based worktext acceptable as learning material?
3. Is the use of comics-based worktext effective in world literature subject?

2. Literature Review

2.1 Use of Comics for Improving Academic Performance

Gibbons and Varnum (2001) characterize comics as pictures arranged in sequence and juxtaposition of compiled words, photographs and pictures. Comic strips, graphic novels, comic books and animated cartoons are visual texts which conveys information at the same time entertain the readers. According to Sarlitto (2003), learners benefit by using comics in presenting subject matter in the class. Combs (2003) and Saulitto (2003) identified various benefits of using comics as: comics represents a picture which gives information and knowledge, comics give essential ideas, the graphics of comics is easier to recall in which the readers can easily engage in thinking, imagining and creative writing. The readers can also learn how to write dialogues which results in motivating students with poor reading. It also helps readers to organize stories and perform story telling in which they easily understood the topic, develop a high type of thinking skills, converts visual to verbal interrelatedness, improve and supplement reading, speaking, writing and thinking, serves as an assessment tool for reading skills, encourages mind perception through sequences of stories.

Cary (2003) advocated that comics provide opportunities in all students, fast reader or slow reader, at the same time comics lessen the text, manageable to read and can be used by English Language beginners. From this point of view, this study theorized that the second language learner can benefit from connection in developing a material such as comics in presenting World Literature in which the stories are studied in school, more often in an English as a Second Language (ESL) classroom.

Thacker (2007) in his study tells that comics in the classroom has a list of references and there is a growing movement in reading comics which is a valuable tool and have some great uses in the classroom and in a variety of curricula. From pre-readers to high school students, comics can help students analyze, synthesize and absorb the content that may be more difficult when presented in only one way which books usually do. Meanwhile, Gafoor and Shilna (2017)

demonstrated the use of cartoons and comics in teaching Science, particularly Chemistry in which the students used comics strips and short cartoons to study the procedures of the chemistry experiment activities and in the later part had unit tests as assessment. The study concluded that reading comics can elevate the comprehension of students such as procedural skills. The vocabularies of comic strips and cartoons are easy to define by the students and therefore help them to learn and do the experiment activities by comprehending on what they read. This can prove the study that using the developed material comic book increased the reading comprehension skills and vocabulary skills of the students since in the data shown of pre-test and post-test there have significant changes.

Al Rabaani and Ahmed (2017) stated that cartoons significantly increased students' awareness of subject matters, topics and issues discussed and also found out that students had very high positive attitudes toward cartoons in lessons. While the study investigates the effect of using cartoons on developing grade four students' awareness of water issues, it also examined their attitudes towards using cartoons in social studies lessons. The results concluded that using cartoons significantly increased students' awareness of water issues. It also found that students had very high positive attitudes toward using cartoons in social studies lessons.

King (2018) argued that there is a clear move toward the serious discussion of comics and comics creators in contemporary literature, an increasing willingness to talk about comics and their makers. In connection to the current study, the researcher included a concept of creating contemporary literature in the form of comics to be a form of reading material nowadays.

Affeldt et al. (2018) describe the use of comics in experimental instructions in non-formal learning which visualise stories, viewed as comprehensible to students, and also allow instructors to connect scientific tasks with authentic situations taken from students' lives. Results showed very positive perceptions by the students with respect to comic-based experimental instructions. Similarly, the study of Cho (2019) used cartoons and sketches to teach mathematics and eventually measured the student's competencies. It was revealed that using graphics such as cartoons, sketches and comics for middle schools can motivate and enhance reader's competency like numbers and language use which is based in his capacity of vocabulary expertise and instinct of selecting the right meaning of the word needed.

In several experimental studies, comics was used in the teaching of various skills and found significant developments in the children. For instance, Ilhan et al. (2019) examined the effects of comic books on students' motivation and academic success in social studies course and the

results revealed that students who were taught by the comic book reached significantly better achievement score and higher motivation counterparts, who were taught in traditional classroom environment. Meanwhile, Dogan and Koc (2017) studies the effects of educational comics on teaching environmental issues and environmental organizations subjects in Social Studies course and found significant favour of post-test scores between the mean scores of the students in the experimental group who were instructed by educational comics and those of the students in the control group in terms of academic achievement and attitude towards the environment. Similarly, Senturk and Simesk (2021) explored the effect of using educational comics as teaching material in social studies course for students' academic achievement and results showed both educational comics and educational cartoons as effective materials for educational activities in various aspects.

With regards to the use of comics in instruction, Ates (2019) asserts that cartoons can be not only an effective material for cognitive learning but also an effective teaching material for affective and behavioral learning. This is supported by Ahmed (2021) emphasizing and contextualizing the “childish” elements of the comic, it’s bridging of children’s interest culture and adult interest culture through. In the 21st century, Wang et al. (2021) suggest data comics go beyond the traditional linear, immutable storyline sketched by a story author by transforming comics digitally. In connection to the current study, the researcher formulated the idea of making comics as digital storyline aside from being traditional text, this was seen when the researcher made layouts using digital platform of the comics. In addition, the researcher figured out some distinct functions of comics based text in which the reader might be satisfied and entertained while reading.

2.2. Acceptability and Effectiveness of Comics in Teaching

According to Tatalovic (2009), comics are popular type of art and provide a medium for teaching Science Education that are more efficient to use since it arouses the interest of the learners. Similarly, the teaching of dance and music also encourages the use of comics. Edmunds (2006) who worked as a Curriculum Manager discusses the combination of pictures and text is like dance and music. For this, Elder (2014) suggests “Three E’s of Comics” that includes: Engagement, which states that comics plant meaning by means of active participation of the readers while going along in reading; Efficiency, which states that format of comics gives large amounts of information in a short span of time; and Effectiveness, which transfers learning easily because of the memory recall through text and pictures combination.

There are several studies on the use and acceptability of comics in teaching. For instance, Comer (2015) found that comics have interesting graphical images and recognizable symbols that is why ideas of people are easily triggered resulting to interest in reading, easy to understand the use of speech balloons and the pictures have the elements of lines and shading which makes the comics produce movements and motions. In medical science, Muzumdar (2016) found that comics give factual information through visuals, within visuals the information are imprinted such as the settings, characterization and actions. Similarly, Affeldt et al. (2018) stated that the use of comics and picture books in teaching Chemistry, Mathematics, Science and Technology improves the knowledge, trivia and general information of the reader aside from analyzing the sequence of the story and additional information. In conclusion, Casumpang and Enteria (2019) assert that teaching specific science concepts is more efficient and effective with the use of visual arts such as comics that can easily deliver information about the text compared to bulky textbooks.

There are several benefits of using comics in instruction such as development of reading skills and the use of Language (Mallia, 2017), practice of humanism through delivery of moral lesson in stories (Wallner, 2017), enriching cognitive domain (Clarke, 2018), enhancing moral values as life passion, courage, affection, solidarity, sacrifice and love the homeland (Hennilawati, 2018) and gauging the ability to think spatially (Reumont & Budke, 2021). Wang et al. (2022) elaborated that data comics are effective and versatile means for visual communication, leveraging the power of sequential narration and combined textual and visual content, while providing an overview of the storyline through panels assembled in expressive layouts. However, Wiegerova and Navratilova (2017) found that although comics are usable, it takes time to read, especially in lower years, in which stories are long.

3. Methodology

This study is an applied experimental research. The researcher-devised comics-based worktext for world literature subject was used in the classes. The study also used pre-test and post-test as experimental strategy. Relatively, selected respondents assessed the validity and effectiveness of the learning material.

The learning material was administered in one Literature class with 46 students. The study was conducted in the first semester, school year 2018-2019. The respondents of the study were first year college students from a state university in the Philippines taking up Bachelor of

Science in Industrial Technology. The subject is taught 3 hours a week. This study used convenience sampling technique where the sample (n) was all selected and belonged to the available population (N); in such a case, in one section that used the developed instructional material. It is notable that all the students from one class took pre-test and post-test and also answered the acceptability survey.

The following steps were followed in the completion of this study.

1. The researcher developed an original concept of worktext which has an application of comics-based stories found in literature around the world such as Asian, African, European and American Literature.
2. The pre-test was conducted to assess the respondent's background studies and skills in reading comprehension and vocabulary words before using the developed comics-based worktext. The pre-test was given two to three weeks after the opening of classes.
3. The developed comics-based worktext was used after the pre-test as the main medium of the Literature class with 46 students. Each student received one full copy of instructional material used for the whole semester. Before the semester ends, the researcher administered the post-test.
4. The post-test served as the final assessment of the respondents to prove learning and progress of their reading comprehension skills and vocabulary skills. After administering the post-test, the researcher conducted a survey using on the acceptability and the effectiveness of the comics.

The study used the following instruments in the conduct of the study:

Comics-based worktext. The developed material checked and reviewed by specialists produced into forty-six (46) copies given to the students involved in the study. Each copy has one hundred eighty-six (186) colored pages full of comics' illustrations and activities like that of textbook with original compositions and lay-outs.

Pre and posttests. Pre-test and post-test have two (2) parts, namely: the reading comprehension part consisting of four (4) parts (the literal test, interpretative test, creative test and evaluative test) each test has a total of forty (40) items; and the vocabulary skills test part consists of four (4) parts, the context clues test, word analysis test, word structure test and the loan words test) each test has a total of forty (40). All in all, each pre-test as well as the post-test has eight parts for skills. The Reading Comprehension Skills test has a total of 80 items. Each skills test is 20 items. In the Literal Skills Test, the respondents are expected to identify the basic

information in the given story such as settings, characters, plot, climax and the conflict. In the Interpretative Skills Test, the respondents are expected to take read and understand the text and explain a specific line or statement from the given story. In the Creative Skills Test, the respondents are expected to use their imagination and innovativeness by concluding the next forth sequence of the selection. The Evaluative Skills Test assesses skills such as concluding, assuming and weighing the information from the given selection. Meanwhile, the Vocabulary Skills test has a total of 80 items. Each skills test is 20 items. The Context Clues Skills Test make the respondents answer the given sentence with underlined vocabulary word, they are expected to identify the meaning of the word to the extent that the meaning is within the idea of the given sentence. In the Word Analysis Skills Test the respondents will answer this type of skills test by giving the meaning of the underlined vocabulary word on how it is use due to words has literal meaning and others have same word but different interpretations. Word Structure Skills Test assess the perception in identifying the word which belongs to a certain type of structure such as Acronym, Affixing, Blending, Hybridizing and alike. Lastly, the Loan Words Skills Test for Vocabulary Words which assess the knowledge of origins of the variety of words with the help on how it is used in the sentence. Each number has a sentence with an underlined word. The students will identify the underlined word by means of its origin like Greek, Latin, Chinese and alike.

Acceptability Survey. Aside from the pre-test and post-test, survey questionnaire was given to the respondents to evaluate the effectiveness and acceptability of the developed comics-based worktext. The survey questionnaire is divided into two parts. Part one is the profile of the respondent's. Part two is the evaluation of the instructional material which contains the effectiveness survey and the acceptability survey. Each part consists of four (4) parts.

For the analysis of significant difference between pre-test and post-test, the study used inferential statistics with 5% significance level. For the evaluation of the material, the study used the mean and standard deviation.

4. Findings and Discussion

Table 1 shows the mean difference between the pre-test and post-test of the students in reading comprehension and vocabulary words skills tests. The results of the different parts of the test include the literal skills test, interpretative skills test, creative skills test and the evaluative

skills test of the reading comprehension skills test and the context clues, word analysis, word structure and loan words of the vocabulary skills test.

Table 1

The Mean Difference in the Pre-Test and Post-Test of Students in Reading Comprehension and Vocabulary Words

	N	Minimum	Maximum	Mean	Std. Deviation
Literal	46	-6.2	7.5	0.020	3.3303
Interpretative	46	-1.2	10.0	3.161	2.8086
Creative	46	-1.2	7.5	2.276	2.4788
Evaluative	46	-5.0	12.5	2.974	4.5215
Context Clues	46	-6.2	11.2	2.285	4.7567
Word Analysis	46	-1.2	11.2	6.630	3.0515
Word Structure	46	-2.5	10.0	3.750	3.3293
Word Structure	46	-2.5	10.0	3.750	3.3293
Loan Words	46	-2.5	12.5	2.937	4.1570
Pre-Test - Post-Test	46	-2.0	25.0	9.141	7.3889

The literal skill test has .020 mean score which is the lowest, the interpretative skills test has 3.161 mean score, the creative skills test has 2.276 mean score, the evaluative skills test has 2.974 mean score, the context clues skills test has 2.285 mean score, the word analysis skills test has 6.630 mean score which is the highest, the word structure skills test has 3.750 mean score and the loan words skills test has 2.937 mean score. This indicates that in literal skills test, the respondents gain less additional score compared to their pre-test and they gained more score in word analysis post-test.

The table shows the total mean difference of the scores in each competencies, namely the reading comprehension (literal, interpretative, creative and evaluative skills test) and vocabulary skills test (context clues, word analysis, word structure and loan words). All in all, the pre-test and post-test have 9.141 mean difference. It indicates that there is much differences between the two tests. The remarkable findings were the scores gained its comparative results from low to high since the differences were greater than .05.

The results of the study had similarities with Dimitrov (2020) that the use of comics improved the achievement of the students comparing the pre-test and post-test after the use of

comics materials, Cho (2019) on the use of cartoons and sketches to teach mathematics and Gafoor and Shilna (2017) on the use of cartoons and comics in teaching Chemistry where the developed material comic book increased the reading comprehension skills and vocabulary skills of the students since pre-test and post-test have significant changes.

Table 2

Test of Difference between Pre-Test and Post-Test

Pre-test –Post-test Performance	Paired Differences					t	Sig. (2- tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
				Lower	Upper		
Literal	-.026	3.328	.491	-1.01	.962	-.053	.958
Interpretative	-3.156	2.81	.415	-3.993	-2.320	-7.602	.000
Creative	-2.255	2.485	.366	-2.99	-1.52	-6.156	.000
Evaluative	-2.984	4.526	.667	-4.328	-1.64	-4.472	.000
Context Clues	-2.297	4.762	.702	-3.711	-.883	-3.271	.002
Word Analysis	-6.633	3.061	.451	-7.541	-5.724	-14.696	.000
Word Structure	-3.748	3.343	.4929	-4.740	-2.755	-7.604	.000
Loan Words	-2.941	4.173	.616	-4.180	-1.702	-4.781	.000
Pre-Test - Post-Test	-9.141	7.389	1.09	-11.336	-6.95	-8.391	.000

Table 2 shows that the column sig. (2-tailed) all the probability level values show less than .05, thus the results of the test of difference between the achievement of the students in their pretest and post tests are significant. It means there is significant difference in their performance. In the reading comprehension skills, the results reveal that there is a significant difference between the literal skills pre-test and the literal skills post-test since the probability values shown is .958 which is less than .05, interpretative skills pre-test and the interpretative skills post-test having the probability values of .000 which is less than .05, the creative skills pre-test and the creative skills post-test having the probability values shown of .000 which is less than .05 and the evaluative skills pre-test and the evaluative skills post-test since the probability values shown is .000 which is less than .05. This revealed the students achieved a higher score in reading comprehension skills post- test.

In the vocabulary skills, the results reveal that there is a significant difference between the context clues skills pre-test and the context clues skills post-test since the probability values

shown is .002 which is less than .05, the word analysis skills pre-test and the word analysis skills post-test since the probability values shown is .000 which is less than .05, the word analysis skills pre-test and the word analysis skills post-test since the probability values shown is .000 which is less than .05 and the loan words skills pre-test and the loan words skills post-test since the probability values shown is .000 which is less than .05. This revealed the students achieved a higher score in vocabulary skills post- test.

The over-all results revealed that there is a significant difference between the pre-test reading comprehension skills and vocabulary skills and the post-test reading comprehension skills and vocabulary skills since the probability values shown is .000 which is less than .05. This revealed the students achieved a higher score in the post-test.

Table 3

Acceptability of Comics-Based Worktext in World Literature

Indicators	Mean	Interpretation
Objectivity	4.724	Fully Met
Language Used	4.713	Fully Met
Graphic Designs	4.754	Fully Met
Usability	4.761	Fully Met

Legend; Fully Met 4.21-5.00, Average Met 3.41-4.20, Partially Met 2.61-3.40, Slightly Met 1.81-2.60 and Not Met 1.00-1.80

Table 3 presents the acceptability of comics-based worktext in terms of objectivity, language used, graphic design and usability. The results show that the mean of *objectivity* is 4.724 which is interpreted as *fully met*, *language used* has 4.713 mean which is *fully met*, *graphic design* has mean of 4.754 which is *fully met* and *usability* is 4.761 which is *fully met*. All in all, the acceptability of the comics-based worktext in world literature is fully met.

The acceptability of the comics-based worktext confirms the description of Clarke (2018) that comics-made stories serve as a good source of learning as past time and identifies emotions while reading, also stated that comics give its readers to use their cognitive domain by reading it and the same rate watching the pictures how it moves. At the same rate, Mallia (2017) asserts on the use of language triggers the interest of the readers and develops the use of language from time to time. In terms of graphic design, the results affirm Thacker (2016) on the use of interesting graphical images and recognizable symbols to trigger interest in reading. Lastly, in terms of usability, Wiegerova and Navratilova (2017) found the same results that comics are

publishable, can be used from classroom to classroom, easy to access and comics pages were easy to open at.

Table 4

Effectiveness of Comics-Based Worktext in World Literature

Indicators	Mean	Interpretation
Readability	4.770	Fully Met
Knowledge Ability	4.785	Fully Met
Values Discovery	4.791	Fully Met
Additional information	4.7739	Fully Met

Legend; Fully Met 4.21-5.00, Average Met 3.41-4.20, Partially Met 2.61-3.40, Slightly Met 1.81-2.60 and Not Met 1.00-1.80

Table 4 presents the effectiveness of comics-based worktext in terms of readability, knowledge ability, values discovery and additional information. The results show that the mean of *readability* is 4.770, which is interpreted as *fully met*, *knowledge ability* has 4.785 mean which is *fully met*, *values discovery* has mean of 4.791 which is *fully met* and *additional information* is 4.7739 which is *full met*. All in all, the effectiveness of the comics-based worktext in world literature is fully met.

The results affirm the previous studies such as Casumpang and Enteria (2019) that comics can be easier to use to deliver information about the text compare to bulky textbooks, Affeldt et al. (2018) that the use of comics and picture books in teaching and the visuals of this materials improves the knowledge, trivia and general information of the reader, and Wallner (2017) that teaching reading comics is a useful tool.

5. Conclusion

Based on the results, the academic performance, from the pre-test and post-test of the respondents had improved with the use of comics-based worktext in World Literature. The study's pre-test and post-test have 9.141 mean score which indicates that there is much differences between the two tests. The remarkable findings were the scores gained its comparative results from low to high since the differences were greater than .05. From this result, the study concludes that the post-test did not only result in a measurable increase in learning but also show that the teaching intervention was effective by the use of the developed comics-based worktext for literature. This was proven wherein the knowledge increased by

nearly half when compared with pretest levels. This implies that the teaching intervention used in the study had worked enough to increase student's previous knowledge and skills of reading comprehension and vocabulary. Similarly, the survey results also showed that the comics-based worktext is acceptable as instructional material in teaching World Literature. The results show that the general mean of the acceptability of comics-based worktext is 4.738 which is fully met based on objectivity, language used, graphic design and usability. From this result, it is concluded that the developed comics-based worktext in World Literature is understandable to read since the story and topic is in a comic-based approach, has simple and clear language to understand, can easily follow the story just by reading the pictures, graphics and movements, and comics is handy, takes less time to read, accessible and can be reproduced clearly. The instruction material is also effective in teaching World Literature as affirmed by the students. The results show that the general mean of the effectiveness of comics-based worktext is 4.779 which is fully met based on readability, knowledge ability, values discovery and additional information. From this result, it is concluded that that the developed comics-based worktext in World Literature is easier to read compare to textbooks, that the comics give related information aside from the story, has moral values seen in the settings and the characters in the story and widen historical knowledge and culture of a certain place seen in the story.

From the results, it is recommended that teachers, professors and instructors, can use the comics-based instructional material in teaching World Literature or any literature subject to enhance reading comprehension and vocabulary skills of the students. The school administrators and curriculum developers can provide new innovative instructional materials to be used in presenting world literature that can enhance reading comprehension questions, vocabulary words, develop multiple intelligences, lessen the time of reading and delivers moral lesson in an efficient way.

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